

REMARKS

Favorable reconsideration of this Application as presently amended and in light of the following discussion is respectfully requested.

After entry of the foregoing Amendment, Claims 1-12 are pending in the present Application. Claims 1, 2, 6, 10 and 12 have been amended. Support for the amendment of these claims can be found at least at Figs 4-5 of the specification. No new matter has been added.

By way of summary, the Official Action presents the following issue: Claims 1-12 are rejected under 35 U.S.C. § 103 as being unpatentable over Forslow (International Application Publication No. WO 99/05828) in view of NPL – ETSI TS 100 593, V8.0.0, Technical Specification: Digital Cellular Telecommunications System (Phase 2+); Base Station Controller – Base Transceiver Station (BSC – BTS) interface; Interface principles (hereinafter “Technical Specification”).

REJECTION UNDER 35 U.S.C. § 103

The Official Action has rejected Claims 1-12 under 35 U.S.C. § 103 as being unpatentable over Forslow in view of Technical Specification. The Official Action contends that Forslow discloses all of the Applicants’ claim features with the exception of a radio transmitter. However, the Official Action has cited Technical Specification as describing this more detailed aspect of the Applicants’ claims and states that it would have been obvious to one of ordinary skill in the art at the time the advancements were made to combine the cited references for arriving at the Applicants’ claims. Applicants respectfully traverse the rejection.

Applicants' amended Claim 1 recites, *inter alia*, a mobile communication system including:

a determination unit configured to designate layers of data for transmission to respective ones of base stations for mobile stations of respective radio areas, the designation being based on area resource information concerning radio resources for the respective radio areas covered by the base stations so that the layer of data are selectively provided to the respective radio area in correspondence with available radio resources ...

By way of background, radio communication systems are known in which multicast messages are provided to a group of users. In such configurations, it is possible to "layer" data of the multicast messages. The layering divides the multicast communication into a plurality of distinct component layers such that the message may be broken up into portions. For example, voice and image data may form separate, distinct layers of the transmission. In such configurations, the layers are then provided for transmission to the corresponding base stations including the users of the designated multicast group. However, the radio resources are available in the respective radio areas of the designated users is not taken into consideration when determining the optimal delivery for the plurality of layers.¹

In light of at least the above deficiencies in art, the present advancements are provided. With at least the above objects in mind, a brief comparison of the claimed advancements in view of the cited references, is believed to be in order.

Forslow describes a GSM mobile radio communication network in which a specific quality of service is reserved for each application flow established. Once these reservations are established, for example with RSVP protocol, the data packets are forwarded with respect to each one of these dedicated flows.² As noted at page 21 lines 6-23, in forwarding the packets, the packets are classified, scheduled and policing functions are provided. To this end, queues are provided for corresponding one of a service delay class QoS1-QoS4 at each

¹ See Application at pages 1-2.

² See Forslow at pages 18-20: Figures 4-5.

base station subsystem (BSS). Likewise, the SGSN of GSM system includes three “layers” of queues including queues at the SNDC protocol layer which includes one queue established for packets for having a same PDP context and quality of service of delay class. A second queue layer including one queue for packets corresponding to the same mobile host and quality of service delay class, and a third queue layer including a queue storing packets corresponding to the same cell and quality of service delay class.³

Technical Specification describes a digital cellular telecommunication system in accordance with the GSM standard.

Conversely, in an exemplary embodiment of the Applicants’ claimed advancements, a mobile communication system is provided and includes a determination unit. The determination unit is configured to designate layers of data for transmission to respective ones of base stations for mobile stations of respective radio areas. The designation of the determination unit is based on area resource information concerning radio resources for respective radio areas covered by the base stations. The designations determine the layer of data which is to be selectively provided to the respective radio area in correspondence with available radio resources. The radio transmitter is configured to transmit the data to the mobile stations according to the designation of the determination unit.

As can be appreciated, although Forslow utilizes the term “layer” this terminology is used in referring to a layer of queues. Forslow does not discuss the layering of data whatsoever. Likewise, Forslow describes reserving a quality of service for each application flow during an established packet session. Forslow does not disclose or suggest selectively providing layers of data to respective radio areas in correspondence with the available radio resources as Forslow describes reserving the resources in advance. Likewise, a Technical

³ See Forslow at page 21 lines 6-23.

Specification simply describes a GSM standard BTS interface, this reference does not remedy the deficiencies discussed above.

Accordingly, Applicants respectfully request that the rejection of Claims 1-12 under 35 U.S.C. § 103 be withdrawn.

CONCLUSION

Consequently, in view of the foregoing amendment and remarks, it is respectfully submitted that the present Application, including Claims 1-12, is patently distinguished over the prior art, in condition for allowance, and such action is respectfully requested at an early date.

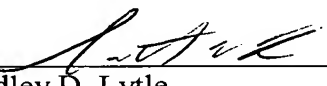
Respectfully submitted,

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